months are April to October, the value for these months varying from 31 in May to 40 in April.

In column 30 the weight of a cubic foot of air is shown; the smallest was 500 grains, in June, and the largest 548 grains, in January.

In column 31 are given the number of days of rain in each month; the greatest number was 13, in December. The total number in the year was 51. At Jerusalem rain fell on 59 days.

In column 32 the monthly fall of rain is given. The heaviest fall of rain on one day in the months from January to March was 1·10 inch, on January 14th, and the next in order, 0·95 inch, on February 6th. No rain fell from May 17th till October 22nd, making a period of 157 consecutive days without rain. The fall of rain on December 25th was 1·62 inch, and on the 23rd 1·02 inch fell. The heaviest monthly fall in the year was 6·64 inches, in December, and the next in order 4·16 inches, in January. The total fall for the year was 17·10 inches; at Jerusalem the total fall for the year was 22·43 inches.

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JERUSALEM IN THE YEAR 1899.

By James Glaisher, F.R.S.

The numbers in column 1 of this table show the highest reading of the barometer in each month; of these the highest, as usual, are in the winter, and the lowest in the summer months; the maximum for the year was 27·690 inches, in January, and the next in order 27·619 inches, in November. The highest reading in the preceding 38 years, viz., 1861 to 1898 inclusive, was 27·816 inches, in December, 1879, and the next in order 27·800 inches, in November, 1870.

In column 2 the lowest reading of the barometer in each month is shown; the minimum for the year was 27·152 inches, in February. At Tiberias the reading on this day at 8 a.m. was 30·455 inches. The next in order at Jerusalem were 27·171 inches, in December, and 27·179 inches, in August. The lowest reading in the preceding 38 years was 26·860 inches, in March, 1898, and the next in order 26·970 inches, in March, 1896.

(*To face p.* 292.)

MONTHLY METEOROLOGICAL TABLE.

Deduced from observations taken at Jerusalem, by JOSEPH GAMEL, in a garden, well within the city, about 2,500 feet above the level of the Mediterranean Sea, open on all sides.
Latitude, 31° 46′ 40″ N., Longitude, 35° 13′ 30″ E.

Months.	Pressure of atmosphere—corrected to 32° Fahrenheit.				Temperature of the air.							9 a.m.								Wind. Relative proportions of.								Mean amount of cloud.	Rain.	
												Mean reading.			Vapour.															
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean of all highest.	Mean of all lowest.	Mean daily range.	Mean.	Dry bulb.	Wet bulb.	Dew point.	Elastic force of.	Weight in a cubic foot of air.	Additional weight required for saturation.	Degree of humidity.	Weight of a cubic foot of air.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Number of days on which it fell.	Amount collected.
1899.	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	°	in.	grs.	grs.	°	grs.											in.
January	27·690	27·192	0·498	27·451	54·5	31·0	23·5	50·3	38·2	12·1	44·2	46·1	43·1	39·7	·245	2·8	0·8	79	503	0	4	6	2	0	7	6	6	4·1	14	6·46
February	27·559	27·152	0·407	27·391	65·2	33·0	32·2	55·9	42·0	13·9	49·0	50·8	47·1	43·2	·280	3·2	0·9	76	497	0	2	0	2	1	6	8	9	3·6	11	3·30
March	27·572	27·219	0·353	27·418	82·5	34·0	48·5	62·6	46·2	16·4	54·4	55·1	49·9	44·9	·299	3·4	1·6	69	493	1	4	4	3	0	6	1	12	4·8	8	3·21
April	27·501	27·251	0·250	27·390	86·0	37·0	49·0	71·0	51·2	19·8	61·1	64·1	53·9	45·5	·303	3·4	3·3	50	484	0	7	4	1	2	0	6	10	3·3	5	1·29
May	27·515	27·292	0·223	27·388	96·0	47·0	49·0	84·2	59·7	24·5	71·9	74·7	60·1	49·6	·355	3·9	5·5	42	474	3	5	4	6	2	3	2	6	1·9	0	0·00
June	27·458	27·224	0·234	27·352	99·0	56·0	43·0	84·1	62·9	21·2	73·5	75·8	63·3	54·4	·423	4·6	5·0	48	472	3	2	1	2	2	2	6	12	1·6	0	0·00
July	27·375	27·206	0·169	27·291	91·0	60·0	31·0	84·7	64·0	20·7	74·3	76·6	63·7	54·6	·429	4·7	5·2	47	470	2	0	0	0	1	0	11	17	0·4	0	0·00
August	27·397	27·179	0·218	27·316	91·8	60·0	31·8	85·4	64·4	21·0	74·9	76·9	65·7	57·9	·480	5·2	4·8	52	462	4	1	0	0	0	2	6	18	1·6	0	0·00
September	27·488	27·319	0·169	27·410	94·0	58·5	35·5	85·3	64·8	20·5	75·0	76·8	63·1	53·5	·411	4·5	5·5	45	472	4	5	3	1	0	0	4	13	1·0	0	0·00
October	27·616	27·355	0·261	27·461	88·2	51·0	37·2	77·5	60·5	17·0	69·0	70·2	59·9	52·0	·388	4·2	3·8	52	479	0	7	3	0	2	6	1	12	4·1	3	0·35
November	27·619	27·265	0·354	27·485	74·5	39·0	35·5	65·1	51·3	13·8	58·2	60·9	53·6	47·2	·326	3·6	2·3	61	488	3	13	1	3	1	4	2	3	4·4	7	1·47
December	27·599	27·171	0·428	27·445	64·8	37·0	27·8	55·3	44·1	11·2	49·7	51·4	47·6	43·7	·286	3·2	1·0	76	497	0	3	4	2	2	6	7	7	5·1	11	6·35
Means	27·532	27·235	0·297	27·400	82·3	45·3	37·0	71·8	54·1	17·7	62·9	64·9	55·9	48·9	·352	3·9	3·3	58	483	sum. 20	sum. 53	sum. 30	sum. 22	sum. 13	sum. 42	sum. 60	sum. 125	mean. 3·0	sum. 59	sum. 22·43
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

The numbers in the 3rd column show the extreme range of readings in each month; the smallest was 0·169 inch, in both July and September, and the next in order was 0·218 inch, in August; the largest was 0·498 inch, in January, and the next in order 0·428 inch, in December. The mean monthly range for the year was 0·297 inch. The mean for the preceding 38 years was 0·313 inch.

The range of barometer readings in the year was 0·538 inch. The largest range in the preceding 38 years was 0·935 inch. in 1898; and the smallest 0·491 inch, in 1883.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the highest was 27·485 inches, in November, and the next in order 27·461 inches, in October; the lowest was 27·291 inches, in July, and the next in order 27·316 inches, in August. The mean yearly pressure was 27·400 inches. The highest mean yearly pressure in the preceding 38 years was 27·442 inches, in 1863; and the lowest 27·357 inches, in 1894. The mean yearly pressure for the 38 years was 27·389 inches.

The temperature of the air reached 90° on May 10th, and there were 6 other days in May when the temperature reached or exceeded 90°. In the preceding 17 years the earliest day in the year the temperature was 90° was March 25th in the year 1888; in June it reached or exceeded 90° on 6 days; in July on 2 days; in August on 2 days; and in September on 3 days; the 22nd being the last day in the year of a temperature as high as 90°. In the preceding 17 years the latest day in the year this temperature reached 90° was on October 23rd in both 1887 and 1898. The temperature reached or exceeded 90° on 20 days during the year. In the year 1898 the number of days of this high temperature was 12, and in 1887 was 73; the average for the 17 years was 36. The highest temperature in the year was 99°·0, on June 25th; the highest in the preceding 17 years, viz., 1882 to 1898, was 108°, in June, 1894.

The temperature of the air was as low or lower than 40° in January, on 26 nights; in February, on 8 nights; in March, on 7 nights; in April, on 5 nights; in November, on 1 night; and in December, on 7 nights. Thus the temperature was as low or lower than 40° on 54 nights during the year. In the year 1892, the number of nights of this low temperature was 19, and in 1894 was 113; the average of the 17 years was 55. The lowest tem-

perature in the year was 31°, on January 18th. The lowest in the preceding 17 years was 25°, which occurred on two nights, viz., December 31st, 1897, and on January 1st, 1898.

The highest temperature of the air in each month is shown in column 5. In January it was 54°·5, being 5°·7 below the mean of the 17 high day temperatures in January. The high day temperature was also below its average in February, July, August, September, October, November, and December, and above in the remaining months. The mean for the year was 82°·3, being 1°·4 below the average of 17 years.

The lowest temperature of the air in each month is shown in column 6. In January it was 31°, being the lowest in the year, and 0°·2 below the average of the 17 low night temperatures in January. The low night temperature was also below its average in April and November, and above in the remaining months. The mean for the year was 45°·3, being 0°·9 above the average of 17 years.

The range of temperature in each month is shown in column 7; the numbers vary from 23°·5 in January to 49° in both April and May. The mean range for the year was 37°·0, being 2°·3 less than the average of 17 years.

The range of temperature in the year was 68°·0. The largest in the preceding 17 years was 81°, in 1894, and the smallest, 65°·5, in the year 1885.

The mean of all the high day temperatures in each month is shown in column 8. The lowest was 50°·3, in Jannary, being 0°·5 lower than the average. The highest was 85°·4, in August, being 3°·2 lower than the average. The mean for the year was 71°·8, or 0°·2 below the average of 17 years.

The mean of all the low night temperatures in each month is shown in column 9. The lowest was 38°·2, in January, being of the same value as the average. The highest was 64°·8, in September, being 3°·6 above the average. The mean for the year was 54°·1, or 1°·6 above the average of 17 years.

In column 10 the mean daily range of temperature in each month is shown; the smallest was 11°·2, in December, and the next in order, 12°·1, in January; the greatest was 24°·5, in May, and the next in order, 21°·2, in June. The mean for the year was 17°·7, being 1°·8 less than the average. The smallest ranges in the preceding 17 years were 9°·3, in January, 1883, and 9°·4, in

December, 1897; the greatest were 33°·8, in August, 1886, and 30° 1, in August, 1887. The smallest mean for the year was 16°·4, in 1897, and the greatest, 24°·3, in 1886.

The mean temperature of the air, as found from the mean of the maximum and minimum temperatures only, is shown in each month in column 11. The lowest was 44°·2, in January, and the next in order were 49°·0, in February, and 49°·7, in December; the highest was 75°·0, in September, and the next in order 74°·9, in August, and 74°·3, in July. The mean for the year was 62°·9, being 0°·7 above the average of 17 years. The lowest mean temperatures in the preceding 17 years were 39°·8, in January, 1890, and 41°·1, in January, 1898; the highest were 81°·2, in August, 1890, and 81°·1, in July, 1888. The highest mean for the year was 63°·5, in 1892, and the lowest, 60°, in 1894.

The numbers in column 12 are the mean readings of a dry-bulb thermometer. If those in column 12 be compared with those in column 11, it will be seen that those in column 12 are a little higher in every month, the difference of the means for the year being 2°·0; the mean difference between the mean temperature of the air, and that at 9 a.m., for the 17 years was 3°·2.

For a few days in the winter months the dry and wet-bulb thermometers read alike, or nearly so, but in the months from April to October the difference between the readings often exceeded 15°, and was as large as 25° on July 6th.

In column 13 the mean monthly readings of the wet-bulb thermometer are shown; the smallest differences between these and those of the dry-bulb were 3°·0, in January, 3°·7, in February, and 3°·8, in December; the largest were 14°·6, in May, 13°·7, in September, and 12°·9, in July. The mean for the year was 55°·9, and that of the dry-bulb 64°·9.

The numbers in column 14 are the mean temperature of the dew-point, or that temperature at which the air would be saturated by the quantity of vapour mixed with it: the smallest difference between these numbers and those in column 12 was 6°·4, in January, and the next in order were 7°·6, in February, and 7°·7, in December; and the largest were 25°·1, in May, 23°·3, in September, and 22°·0, in July. The mean temperature of the dew-point for the year was 48°·9; the mean for the 17 years was 50°·1.

The numbers in column 15 show the elastic force of vapour,

or the length of a column of mercury in inches corresponding to the pressure of vapour; the smallest was 0·245 inch, in January; and the largest 0·480 inch, in August. The mean for the year was 0·352 inch; the average of the 17 years was 0·375 inch.

In column 16 the weight in grains of the water present in a cubic foot of air is shown; it was as small as 2·8 grains in January, and as large as 5·2 grains in August. The mean for the year was 3·9 grains; the average of the 17 years was 4·1 grains.

In column 17 the additional quantity of water required to saturate a cubic foot of air is shown; it was as small as 0·8 grain in January, and as large as 5·5 grains in both May and September. The mean for the year was 3·3 grains, being of the same value as the average of the 17 years.

The numbers in column 18 show the degree of humidity, saturation being represented by 100; the largest numbers appear in January, February, and December; and the smallest in May, July, and September; the smallest of all was 42 in May. The mean for the year was 58; that of the 17 years was 60.

The numbers in column 19 show the weight in grains of a cubic foot of air, under its mean atmospheric pressure, temperature, and humidity. The largest number was 503 grains in January, and the smallest 462 grains in August.

The most prevalent winds in January were S.W., E., W., and N.W.; and the least prevalent winds were N. and S.; the most prevalent in February were N.W., W., and S.W., and the least were N. and E.; the most prevalent in March was N.W., and the least was S.; the most prevalent in April were N.W. and N.E., and the least were N. and S.W.; the most prevalent in May were S.E. and N.W., and the least were S. and W.; the most prevalent in June was N.W., and the least prevalent was E.; the most prevalent in July were N.W. and W., and the least were N.E., E., S.E., and S.W.; the most prevalent in August was N.W., and the least were E., S.E., and S.; the most prevalent in September was N.W., and the least were S. and W.; the most prevalent in October was N.W., and the least were N. and S.E.; the most prevalent in November was N.E., and the least were E. and S.; and the most prevalent in December were W., N.W., and S.W., and the least was N. The most prevalent wind in the year was N.W., which occurred on 125 times, of which 18 were in August,

17 in July, and 13 in September; and the least prevalent wind was S., which occurred on only 13 times during the year, of which 2 were in each of the months of April, May, June, October, and December.

The total number of times of each wind are shown in the last line of columns 20 to 27; those winds less in number than the average of the preceding 17 years were:—

N. by 6
S.E. „ 2
S.W. „ 10
W. „ 7

and those winds greater in number than the average of 17 years were:—

N.E. by 11
S. „ 4
N.W. „ 9

The E. wind was the same in number as the average.

The numbers in column 28 show the mean amount of cloud in each month; the month with the smallest amount is July, and the largest December. Of the cumulus or fine-weather cloud, there were 2 instances; of the nimbus or rain cloud 29 instances, of which 7 were in December, and 5 in each of the months of January, February, and March; of the cirrus 9 instances; of the cirro cumulus 93 instances; of the stratus 1 instance; of the cirro stratus 28 instances; of the cumulus stratus 31 instances; and 172 instances of cloudless skies, of which 24 were in July, and 21 in each of the months of June, August, and September.

The largest fall of rain for the month in the year was 6·46 inches, in January, of which 2·58 inches fell on the 8th, and 1·89 inch on the 9th. The next largest fall for the month was 6·35 inches in December, of which 1·31 inch fell on the 27th, 1·19 inch on the 20th, and 1·13 inch on the 6th. No rain fell from April 6th till October 12th, making a period of 188 consecutive days without rain. The total fall of rain for the year was 22·43 inches, being 3·88 inches below the average of 38 years, viz., 1861 to 1898. The number of days on which rain fell was 59, being 3 more than the average.

LIST OF CASTS AND WAX IMPRESSIONS OF STAMPED JAR-HANDLES.

Sent to London by Dr. Bliss, April 27th, 1900.

Abbreviations:—T.J. = Tell ej Judeideh.
T.S. = Tell es-Sâfi.
T.Z. = Tell Zakarîya.

1. Royal stamp "Shocoh." T.J.
2. The same. T.J.
3. Royal stamp "Memshat." T.J.
4. Royal stamp "Memshat." The stamp has been used twice, producing some doubling of letters. I shall send another of same. T.J.
5. Royal stamp. Probably "Ziph" stamp was clearly used twice. In engraving the *yod* on seal the engraver appears to have been confused in attempting to reverse the letter. T.J.

5A. A second cast of 5.

6. Small four-winged eagle, with defaced lettering above.

7. לנחם / עבדי T.J. (*See* p. 220.)

8. הו(שע) / צפן T.J. (*See* p. 219.)

Upper line imperfect, but the seal appears to be the same with the one shown on p. 95, April 2, 1900.

9. שבני / עזרי T.J. (*See* p. 220.)

10. ..... / מכא Upper line illegible. The last symbol of lower line appears to be an ornament (wheat sheaf?) and not a letter. T.J. (*See* p. 221.)

11. מנחם / or נה .. T.J. (*See* p. 221.)

11A. Second cast of 11.

12. Illegible personal name, seal most imperfectly stamped.
13. Royal stamp "Hebron," broken at bottom. T.Z. (Wax.)
14. Royal stamp. Place name illegible. T.Z. (Wax.)
15. Royal stamp. T.Z. Much defaced. Place name taken to be Memshat.
16. Royal stamp "Shocoh." T.Z.
17. Royal stamp, perhaps "Ziph." T.Z. (Wax.)
18. Royal stamp "Hebron." T.Z. (Wax.)